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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,863	01/25/2002	Mitsuhiro Ishizuka	Q68243	7583

7590 06/15/2004

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

NGUYEN, JENNIFER T.

ART UNIT...	PAPER NUMBER
2674	3

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,863

Applicant(s)

ISHIZUKA ET AL.

Examiner

Jennifer T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12 and 13 recites the limitation "the step of: restraining an operation..." in claim 12 and the limitation "the steps of: judging whether or not a current supplied..." in claim 13.

There is insufficient antecedent basis for this limitation in the claim.

3. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: restraining an operation of data drivers when sum of currents supplied from said data drivers to data electrodes within a time equal to one sub-field or more to less than one frame exceeds a previously set **first specified current value**.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 6-9, 12-14, and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujisaki et al. (US Patent No. 5,583,527).

Regarding claims 1, 3, and 12, referring to Figs. 1-4, Fujisaki teaches a plasma display (1), comprising: a plasma display panel (30), which includes: first and second substrates (12,13) arranged to face with each other; scanning electrodes (15) and common electrodes (14)

alternately provided with each other on a side of said first substrate facing said second substrate and extending in a first direction; and data electrodes (16) provided on a side of said second substrate facing said first substrate and extending in a second direction across said first direction; data drivers which apply data pulse to said data electrodes; a control circuit (35) which controls operation of said data drivers based on a video signal; and a protection signal output circuit (3) which outputs a first protection signal to said control circuit when sum of currents supplied from said data drivers to said data electrodes within a time equal to one sub-field or more to less than one frame exceeds a previously set first specified current value, said first protection signal restraining the operation of said data drivers (from col. 8, line 40 to col. 10, line 59).

Regarding claims 2, 13, and 14, Fujisaki further teaches the protection signal output circuit (3) judges whether or not a current supplied from at least one data driver among said data drivers to said data electrode has exceeded a previously set second specified current value, and outputs a second protection signal to said control circuit (35) when the current supplied to said one data driver has exceeded said second specified current value, said second protection signal restraining the operation of said one data driver (from col. 8, line 40 to col. 10, line 59).

Regarding claims 6, 7, 17, and 18, Fujisaki further teaches the control circuit sequentially deletes sub-fields from a least significant bit among sub-fields which compose one frame with an input of said first protection signal as a trigger (from col. 11, line 46 to col. 12, line 13).

Regarding claims 8, 9, 19, and 20, Fujisaki further teaches the control circuit allows said data drivers to apply equal data pulses to adjacent two scanning electrodes among said scanning electrodes with an input of said first protection signal as a trigger (from col. 10, line 60 to col. 12, line 43).

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 5, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujisaki et al. (US Patent No. 5,583,527) in view of Awamoto et al. (Japan Patent 11-038930).

Regarding claims 4, 5, 15, and 16, Fujisaki differs from claims 4, 5, 15, and 16 in that he does not specifically teach judgment when a temperature around said data drivers exceeds a previously set specified temperature. However, Awamoto teaches protection signal output circuit (31c) starts judgment when a temperature around said data drivers exceeds a previously set specified temperature [0015]-[0023]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the judgment when a temperature around said data drivers exceeds a previously set specified temperature as taught by Awamoto in the system of Fujisaki in order to control power source voltage, resulting reduce power consumption.

8. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujisaki et al. (US Patent No. 5,583,527) in view of Kuriyama et al. (US Patent No. 5,956,014).

Regarding claims 10 and 11, Fujisaki differs from claims 10 and 11 in that he does not specifically teach the protection signal output circuit is composed of a microcomputer. However, referring to Fig. 8, Kuriyama teaches a protection signal output circuit (201) is

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composed of a microcomputer (213). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the microcomputer as taught by Kuriyama in the system of Fujisaki in order to control output of protection signal output circuit, wherein the power consumption is reduced.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Kojima et al. (US Patent No. 6,724,356) teaches plasma display.

Ishida et al. (US Patent No. 6,326,938) teaches power consumption control in display.

Yashiro (US Patent No. 6,288,495) teaches driving apparatus for plasma display.

Terakawa (US Patent No. 4,349,819) teaches driving a plasma display.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jennifer T. Nguyen** whose telephone number is **703-305-3225**.

The examiner can normally be reached on Mon-Fri from 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached at **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC. 20231

Or faxed to: 703-872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

JNguyen
6/08/2004


REGINA LIANG
PRIMARY EXAMINER